



FGS-2824:

8-Port TP+16-Port SFP GbE L2 Managed Switch

Key Features

- **Standard compliance**
 - IEEE 802.3x Flow Control capability
 - IEEE 802.1q VLAN
 - IEEE 802.1p
- **RoHS Compliance**
- **Performance**
 - Switching capacity:**
 - 24 Gigabit Ethernet ports with non-blocking wise speed performance.
 - 8 K MAC addresses
 - 400KB on-chip frame buffer.
 - Supports Jumbo frame support, up to 9K
 - Broadcast/Multicast Storm Suppression
 - Port Mirroring
 - VLAN**
 - Port-base VLAN
 - IEEE802.1q tag-base VLAN, up to 256 active VLANs
 - Q-in-Q is an efficient method for enabling Subscriber Aggregation.
 - VSM(Virtual Stacking Management)**
 - Support 16 devices stacking
 - Multiple switches can be managed via one IP address, just like software stacking
 - Low cost and easily to establish network environment, not extra hardware require.
 - Not center on the physical location of wiring closets
 - Qos**
 - Supports Layer 4 TCP/UDP Port and ToS Classification
 - Supports 802.1p QoS with two level priority queue
 - Supports priority in a Q-in-Q tag
 - Bandwidth Control**
 - Supports Ingress, Non-unicast and Egress Bandwidth rating management with a resolution of 1Mbps
- **Protocol**
 - LACP**
 - Port trunking with 8 trunking group
 - Up to 12 ports for each group.

Benefits

- **QoS support layer 4 classification**

The switch supports not only Layer 2 802.1p Priority Queue control, but also supports programmable higher layer classification and prioritization to enable enhanced Quality of Service (QoS) support for real time applications base on information taken from Layer 2 to Layer 4, such as VoIP.
- **Port Mirroring Helps Supervisor Monitoring Network**

Port mirroring copies traffic from a specific port to a target port. This mechanism helps track network errors or abnormal packet transmission without interrupting the flow of data.
- **Q-in-Q VLAN for performance & security**

The VLAN feature in the switch offers the benefits of both security and performance. VLAN is used to isolate traffic between different users and thus provides better security. Limiting the broadcast traffic to within the same VLAN broadcast domain also enhances performance. VLAN support enabling advanced techniques such as "802.1Q-in-1Q" to be deployed.
- **802.3ad LACP for Bandwidth Aggregation**

The Gigabit ports can be combined together to create a multi-link load-sharing trunk. Up to 12 Gigabit ports can be set up per trunk for bandwidth up to 24Gbps, all traffic is aggregated based on MAC addresses, thus balancing the traffic load. The switch supports up to 8 trunking groups. Port trunks are useful for switch-to-switch cascading, providing very high full-duplex speeds.
- **802.1x Access Control Improve Network Security**

802.1x features enable user authentication for each network access attempt. Port security features allow you to limit the number of MAC addresses per port in order to control the number of stations for each port. Static MAC addresses can be defined for each port to ensure only registered machines are allowed to access. By enabling both of these features, you can establish an access mechanism based on user and machine identities, as well as control the number of access stations.
- **802.1d Compatible & 802.1w Rapid Spanning Tree**

For mission critical environments with multiple switches supporting STP, you can configure the switches with a redundant backup bridge path, so transmission and reception of packets can be guaranteed in event of any fail-over switch on the network.
- **Broadcast/Multicast Storm Control**

To limit too many broadcast/multicast flooding in the network, broadcast/multicast storm control is used to restrict excess traffic. Threshold values are available to control the rate limit for each port. Packets are discarded if the count exceeds the configured upper threshold.

GVRP/GARP

---802.1q with GVRP/ GARP

Multicasting

---Supports IGMP snooping including active and passive mode

STP/RSTP

---802.1d/1w

Network Security

---802.1x access control

---Management Access Policy Control

• Snmpv1,v2c Network Management

---RFC 1213 MIB (MIB-II)

Interface MIB

Address Translation MIB

IP MIB

ICMP MIB

TCP MIB

UDP MIB

SNMP MIB

---RFC 1757 RMON MIB

Statistics Group 1

History Group 2

Alarm Group 3

Event Group 9

---RFC 1493 Bridge MIB

---RFC 1643 Ethernet MIB

---Enterprise MIB

Overview

24-port Gigabit L2 Managed Switch is a standard switch that meets all IEEE 802.3/u/x/z Gigabit, Fast Ethernet specifications. The switch included 8-Port 10/100/1000Mbps UTP and 16-Port Gigabit SFP Fiber management Ethernet switch. The switch can be managed through RS-232 serial port via directly connection, or through Ethernet port using CLI or Web-based management unit, associated with SNMP agent. With the SNMP agent, the network administrator can login the switch to monitor, configure and control each port's activity in a friendly way. The overall network management is enhanced and the network efficiency is also improved to accommodate high bandwidth applications. In addition, the switch features comprehensive and useful function such as QoS (Quality of Service), Spanning Tree, VLAN, Port Trunking, Bandwidth Control, Port Security, SNMP/RMON, IGMP Snooping capability and Illegal Access Report via the intelligent software. It is suitable for both metro-LAN and office application.

Technical Specifications
• LED Description

	LED	Color	Function
Global	POWER	Green	-Lit when +5V power is coming up
Global	CPUACT	Green	-Blinks when CPU is active
Port 1-8	LINK/ACT	Green	-Lit when connection with remote device is good -Blinks when any traffic is present
Port 1-8	10/100/1000Mbps	Green /Amber	-Lit Green when TP link on 1000Mbps speed -Lit Amber when TP link on 100Mbps speed -Off when 10Mbps or no link occurs
Port 9-24	LINK/ACT	Green	-Lit when SFP connection with remote device is good -Blinks when any traffic is present

• Diagnostic LED

System LED	Power
10/100/1000M TP Port Per Port LED	Link/Act, 10/100/1000Mbps
Gigabit SFP Module LED	LINK/ACT

• Network Interface

Configuration	Connector	Port
10/100Mbps TP Jack (RJ-45)	TP(RJ-45)	1 to 8
1000Mbps SFP Fiber Module	SFP	9 to 24

• Hardware Spec.

Feature	Detailed Description
Voltage	100~240 VAC, AC Line
Frequency	50~60 Hz
Consumption	30W
Ambient Temperature	0 to 40 °C
Dimensions	44(H) x 442(W) x 209(D) mm
Weight	3kg
Humidity	5% to 90%
Safety	Comply with FCC Part 15 Class A & CE Mark Approval

Packing Information

Carton Dimensions (mm)	pcs/Carton	N.W (KG)	G.W (KG)
530x512x345	5	20	21

Ordering Information
• Model
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• Optional SFP Fiber Module (See note below)

SFP.LC	1000Base-SX GE SFP Multi-Mode Fiber Module 850nm
SFP.LC.M2	1000Base-SX GE SFP Fiber Module, LC Multi-Mode 1310nm 2km
SFP.LC.S10	1000Base-LX GE SFP Single-Mode 10Km Fiber Module 1310nm
SFP.LC.S30	1000Base-LX GE SFP Single-Mode 30Km Fiber Module 1310nm
SFP.L5.S50	1000Base-LX GE SFP Single-Mode 50Km Fiber Module 1550nm
SFP.BL5.S10	1000Base-LX GE SFP BiDi_LC 10Km Module Single Fiber 1550nm, Type 1
SFP.BL3.S10	1000Base-LX GE SFP BiDi_LC 10Km Module Single Fiber 1310nm, Type 2

SFP.BL5.S20	1000Base-LX GE SFPBiDi_LC 20Km Module Single Fiber 1550nm, Type 1
SFP.BL3.S20	1000Base-LX GE SFPBiDi_LC 20Km Module Single Fiber 1310nm, Type 2

Note: FGS-2824 only supports the SFP transceiver from the following vendors.

1. Ruby Tech Corporation
2. Agilent Technologies
3. AVAGO Technologies
4. Finisar Corporation

Ruby Tech Corp.

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